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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,482	08/04/2003	C. Edward Eckert	03-03	5165

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EXAMINER

WALBERG, TERESA J

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,482

Applicant(s)

ECKERT, C. EDWARD

Examiner

Teresa J. Walberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, 8, 10, 13, 14, 17, 19, 22, 23, 28, 31, 32, 35, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Lorch et al (2,905,919).

Lorch et al teach an electric heater assembly (col. 1, lines 15-16) having a compacted powdered media (col. 1, lines 66-72) having controlled electrical resistivity for generating heat.

With respect to claims 4, 5, 13, 14, 22, 23, 31, 32, Lorch et al teach the use of powdered magnesium oxide (MgO) and carbon (C) as a heating material. See col. 1, line 69-70.

With respect to claims 8, 17, and 35, while Lorch et al do not state the melting point of the material, it would necessarily have a melting point in the claimed temperature range, due to the inherent properties of the materials used.

With respect to claim 10, Lorch et al teach the powdered media generating heat on passage of electrical current. See col. 3, lines 56-64.

With respect to claim 19, Lorch et al teach that the powdered media is compacted. See col. 2, lines 68-70.

With respect to claim 28, Lorch et al teach that the heater assembly includes a container (tube 1) having an electrically insulating inside surface layer

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(2) a compacted powdered heating media (5), with first and second electrical current conduction means (3 and 4).

3. Claims 1, 4-8, 10, 13-17, 19, and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohn (1,473,107).

Kohn discloses an electric heater assembly including a compacted powdered media comprising carbon (graphite) and silicon carbide. See page 1, lines 57-60 and page 2, lines 33-35.

With respect to claims 8, 17, and 26, while Kohn does not state the melting point of the material, it would necessarily have a melting point in the claimed temperature range, due to the inherent properties of the materials used.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 9, 11, 12, 18, 20, 21, 27, 33, 34, and 36 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lorch et al.

With respect to claims 2, 3, 11, 12, 20, 21, 29, and 30, while Lorch et al do not state the resistivity of the powdered resistance material, it appears that the

material of Lorch et al would inherently have the claimed resistivity since it is made of the claimed materials. If the powdered resistance material of Lorch et al is deemed to not inherently have the claimed resistivity, it would have been obvious to adjust the proportions of the materials used by Lorch to obtain any desired resistivity based on the intended use of the device.

With respect to claims 9, 18, 27, and 36, while Lorch et al do not state the average particle size of the powdered resistance material, it appears that the material of Lorch et al would inherently have the claimed average particle size. If the powdered resistance material of Lorch et al is deemed to not inherently have the claimed average particle size, it would have been obvious to adjust the particle sizes of the materials used by Lorch to obtain any desired characteristics based on the intended use of the device.

6. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorch et al in view of Kohn.

Lorch et al disclose an electric heater assembly having the claimed structure, but do not teach the use of SiC powder. Kohn teaches the use of a heater composition including carbon and SiC powders. It would have been obvious in view of Kohn to use SiC powder with the carbon powder in the heater assembly of Lorch et al, since Kohn teaches that heater compositions including SiC are advantageous.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eckert (5,850,073) is cited to show a heating assembly with a protective outer cover.

Weist (389,729), Askew (412,449), Davis (527,324), Opsahl (1,086,726), Davis (543,800), Winger (1,263,181), Gardner (1,338,294), Steward et al (1,610,820), Kull (1,681,736), and Beyer (1,947,692) are cited to show resistance materials using powdered carbon.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 703-308-1327. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in cursive script, reading "Teresa J. Walberg".

Teresa J. Walberg
Primary Examiner
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tjw